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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,122	12/03/2003	Shane Taghavi	2504-017	4763

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ROBERTS ABOKHAIR & MARDULA
SUITE 1000
11800 SUNRISE VALLEY DRIVE
RESTON, VA 20191

EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,122

Applicant(s)

TAGHAVI, SHANE

Examiner

Andrew T. Piziali

Art Unit

1771

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/3/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on 9/30/2005 has been entered. The examiner has withdrawn the 35 USC 112 rejections based on the amendments to the claims.

Election/Restrictions

2. Applicant's election of Group I, claims 1-4 and 7-16, in the reply filed on 9/30/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 5 and 6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

Specification

3. The disclosure is objected to because of the following informality: The use of a number of trademarks (SANTOPRENE, ADVANTECH, and EXACT) has been noted in this application (see Tables 1-4). A trademark should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,986,000 to Williams et al. (hereinafter referred to as Williams) in view of USPN 6,432,542 to Tsai.

Regarding claims 1-4, Williams discloses a polyolefin coating comprising about 25 to about 75% by weight polyolefin and about 25 to about 75% by weight thermoplastic vulcanizate (see entire document including column 3, lines 46-49 and column 4, lines 2-19). Williams is silent with regards to the hardness of the thermoplastic vulcanizate or the melt index of the polyolefin, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Tsai provides this conventional teaching showing that it is known in the polyolefin and thermoplastic vulcanizate coating art (see entire document including column 2, line 61 through column 3, line 27) to use a thermoplastic vulcanizate with a Shore A hardness grade of between 54 and 80 and/or a polyolefin elastomer with a melt index of less than or equal to 5.0 (column 2, lines 15-67 and Example 1). Therefore, absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a thermoplastic vulcanizate with a Shore A hardness of between 54 and 80 and a polyolefin elastomer with a melt index of less than or equal to 5, motivated by the expectation of successfully practicing the invention of Williams.

Regarding claims 3-4, Williams discloses that the coating may comprise a plastomer in an amount of 5 to 15% (column 4, line 59 through column 5, line 10).

6. Claims 1-4 and 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,833,333 to Reisdorf et al. (hereinafter referred to as Reisdorf) in view of USPN 5,986,000 to Williams in view of USPN 6,432,542 to Tsai.

Regarding claims 1-4 and 7-16, Reisdorf discloses a coated polyolefin fabric comprising an inner polyolefin fabric of multi-filament polyolefin yarn and one or more upper and/or lower “second polymer composition” coating layers (see entire document including column 1, lines 37-43, column 4, lines 12-14 and column 4, lines 37-44 and lines 58-62). Reisdorf discloses that the “second polymer composition” coating layers provide the laminate with the tear resistance, flexibility, strength and durability required for the end use of interest (column 1, lines 27-30 and column 5, lines 43-45) and that the coating layers may comprise a polyolefin or a thermoplastic vulcanizate (column 5, line 53 through column 6, line 7), but Reisdorf does not specifically mention a coating comprising both a polyolefin and a thermoplastic vulcanizate.

Williams discloses a polyolefin composition comprising about 25 to about 75% by weight polyolefin, about 25 to about 75% by weight thermoplastic vulcanizate, and a plastomer in an amount of 5 to 15% (see entire document including column 3, lines 46-49, column 4, lines 2-19 and column 4, line 59 through column 5, line 10). Williams discloses that the composition possesses softness, flexibility, improved strength, and tear resistance (column 8, lines 38-42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the polyolefin composition disclosed by Williams as the “second polymer

Art Unit: 1771

composition” coating layers, because the composition would advantageously produce coatings with the desired softness, flexibility, improved strength, and tear resistance.

Williams is silent with regards to the hardness of the thermoplastic vulcanizate or the melt index of the polyolefin, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Tsai provides this conventional teaching showing that it is known in the polyolefin and/or thermoplastic vulcanizate coating art (see entire document including column 2, line 61 through column 3, line 27) to use a thermoplastic vulcanizate with a Shore A hardness grade of between 54 and 80 and/or a polyolefin elastomer with a melt index of less than or equal to 5.0 (column 2, lines 15-67 and Example 1). Therefore, absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a thermoplastic vulcanizate with a Shore A hardness of between 54 and 80 and a polyolefin elastomer with a melt index of less than or equal to 5, motivated by the expectation of successfully producing the composition of Williams.

Regarding claims 9-12, Reisdorf discloses that the polyolefin woven fabric may comprise polypropylene multi-filament yarn (column 4, lines 58-62).

Regarding claims 11-12, Reisdorf does not specifically mention the claimed woven fabric denier or the claimed weave construction, but modifying the weave construction and the denier would have been obvious at the time of applicant's invention because the use of preferred materials and the optimum or workable ranges discovered by routine experimentation is ordinarily within the skill of the art. Further, it would have been obvious to modify the weave construction and/or denier because the applicant has not disclosed that having the specific weave construction or denier solves any stated problem or is for any particular purpose (see paragraph

Art Unit: 1771

[32] of the specification) and/or it appears that the coating composition would perform equally well with any well known material in the art. Therefore, it would have been well within the skill of one of ordinary skill in the art at the time the invention was made to vary the fiber denier and/or the weave construction to achieve the desired fabric properties such as basis weight and breathability, and because it is within the general skill of a worker in the art to select a known weave construction on the basis of its suitability.

Regarding claims 13-16, Reisdorf does not specifically mention the claimed coating thickness, but Reisdorf does disclose that the amount of second polymer applied will depend on the end use and that higher amounts (thicker coatings) result in better abrasion resistance and weldability (column 5, lines 43-52). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness of the coating, such as from 1 to 10 mil, because it is understood by one of ordinary skill in the art that the layer thickness determines properties such as abrasion resistance and weldability and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Response to Arguments

7. Applicant's arguments filed 9/30/2005 have been fully considered but they are not persuasive.

Williams discloses a polymeric compound comprising a polyolefin and a rubber type composition (column 3, lines 46-49). Although Williams discloses that the rubber type composition may comprise a thermoplastic elastomer, which can comprise a thermoplastic

Art Unit: 1771

vulcanizate, the applicant asserts that Williams does not disclose the amount of thermoplastic vulcanizate to be used in the event that thermoplastic vulcanizate is used in the rubber type composition. The applicant asserts that Williams identifies styrene-butadiene-styrene block copolymers as the preferred thermoplastic elastomer and that Williams only provides disclosure as to the amount of styrene-butadiene-styrene block copolymers that may be used. The examiner respectfully disagrees.

Williams discloses that styrene-butadiene-styrene block copolymers are used in the most preferred embodiment (column 4, lines 7-9). Williams discloses that for the preferred embodiment, the rubber type composition includes a thermoplastic elastomer and that the thermoplastic elastomer may comprise thermoplastic vulcanizates (column 4, lines 2-7). Williams also discloses that for the preferred embodiment, the polyolefin is about 25 to about 75 percent by weight of the total weight of the polymeric compound (column 4, lines 14-16). Therefore, in the preferred embodiment, when the rubber type composition may comprise thermoplastic vulcanizates, the polyolefin is about 25 to about 75 percent by weight of the total weight of the polymeric compound and the remainder (75 to 25 percent by weight of the total weight of the polymeric compound) may be thermoplastic vulcanizates.

The applicant suggests that the rubber type composition necessarily includes styrene-butadiene-styrene block copolymers and optionally further comprises thermoplastic elastomers such as thermoplastic vulcanizates. The examiner respectfully disagrees. Williams clearly discloses that the rubber type composition may consist of a thermoplastic elastomer (see the independent claims of Williams).

The applicant asserts that there is not teaching or suggestion to combine Williams with Tsai. The examiner respectfully disagrees. Williams is silent with regards to the hardness of the thermoplastic vulcanizate or the melt index of the polyolefin, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Tsai provides this conventional teaching showing that it is known in the polyolefin and thermoplastic vulcanizate coating art (see entire document including column 2, line 61 through column 3, line 27) to use a thermoplastic vulcanizate with a Shore A hardness grade of between 54 and 80 and/or a polyolefin elastomer with a melt index of less than or equal to 5.0 (column 2, lines 15-67 and Example 1). Therefore, absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a thermoplastic vulcanizate with a Shore A hardness of between 54 and 80 and a polyolefin elastomer with a melt index of less than or equal to 5, motivated by the expectation of successfully practicing the invention of Williams.

The applicant asserts that Tsai does not teach a combination of a thermoplastic vulcanizate and a polyolefin elastomer nor the claimed amounts of thermoplastic vulcanizate and polyolefin elastomer. Applicant's argument is moot because Williams, not Tsai, is relied to upon to teach the currently claimed combination of a thermoplastic vulcanizate and a polyolefin elastomer and the currently claimed amounts of thermoplastic vulcanizate and polyolefin elastomer.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

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ANDREW T. PIZIALI
PATENT EXAMINER


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700